



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/642,868

Filing Date: August 18, 2003

Appellant(s): VU, VINH THANH

Wayne S. Breyer
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 13, 2008 appealing from the Office action mailed March 13, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

- Huyett (US 6,230,460)
- van Goubergen (US 5,330,165)
- Bach et al. (US 3,679,159)

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 – 3, 5 and 7 - 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huyett (US 6,230,460) in view of van Goubergen (US 5,330,165).

With respect to claim 1, Huyett teaches an article (Fig.2, Item 16) for use with spherical vibration-control elements (Fig.2, Item 24), wherein the article comprises a

plate (Fig.2, Item 20) having a number, n , of spaced wells (Figs.1 and 2, Item 26); wherein the wells (Fig.2, Item 26) are suitably sized so that when a well receives the spherical vibration control element (Fig.2, Item 24), the vibration control element contacts the plate at substantially every point along a perimeter of the well (Figs. 2 and 3); and the wells (Fig.2, Item 26) underlie the spherical vibration control elements (Fig.2, Item 24); and further wherein, in use, the only constraint to unrestricted lateral movement of the spherical vibration control elements are the wells (Figs.2 and 3; Col.2, Line 22 – Col.3, Line 58); but fails to disclose wherein the spaced wells are arranged in a two-dimensional array, wherein the two-dimensional array comprises at least two rows of the spaced wells with a minimum of three wells in each row.

On the other hand, van Goubergen teaches an article (Figs.1, 2, 4, 6 - 8 and 10) for use with spherical vibration-control elements (Figs.1, 2, 4, 6 - 8 and 10, Item 1), wherein the article comprises a plate (Figs.1, 2, 4, 6 - 8 and 10, Item 2), having a number, n , of spaced wells (Figs.1, 2, 6 - 8 and 10, Item 4) arranged in a two-dimensional array (Figs.6 and 11), wherein the two-dimensional array comprises at least two rows of the spaced wells with a minimum of three wells in each row (Fig. 6); and the wells are suitably sized to receive the spherical vibration control element (Figs.1, 2, 4, 6 - 8 and 10; Col.5, Line 3 – Col.7, Line 14).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the van Goubergen two-dimensional array with the Huyett design because the two-dimensional array would help distribute the load applied to the system throughout the whole contact surface, in this manner providing for

economical savings in manufacturing and/or production of the article because materials and/or dimensions of the materials could be change based on the ability to resist a particular load amount.

With respect to claims 3, 9, 10, 12 and 13, both Huyett and van Goubergen teaches the limitations described in the claims (Huyett: Figs.2 and 3; Col.2, Line 22 – Col.3, Line 58; van Goubergen: Figs.1, 2, 4, 6 - 8 and 10; Col.5, Line 3 – Col.7, Line 14).

With respect to claims 2, 5 and 11, the Examiner considers that it would have been an obvious matter of design choice to employ a desired amount of wells and/or vibration-control elements; also, to provide the perimeter of the wells with a desired diameter because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233; as so it is discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980); additionally, it has been held that omission of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. In re Karlson, 136 USPQ 184; furthermore, a change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

With respect to claims 7, 8 and 14, the Examiner considers that it would have been an obvious matter of design choice to provide plates and balls of a particular material because it has been held to be within the general skill of a worker in the art to

select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

2. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huyett (US 6,230,460) in view of van Goubergen (US 5,330,165), and further in view of Bach et al. (US 3,679,159).

Huyett and van Goubergen teach the limitations discussed in a previous rejection, but fail to disclose wherein the top plate further comprises a skirt, wherein the skirt depends from a marginal region of the top plate, and further wherein the skirt extends toward the plate and wherein the top plate and the plate have the same shape, and further wherein the top plate is larger than the plate such that the plate fits within an area defined by the skirt.

Nevertheless, Bach et al. teaches an article for use with spherical vibration-control elements (Fig.1, Items 17 - 20), wherein the article comprises a bottom (Fig.1, Item 12) and top plate (Fig.1, Item 15); wherein the top plate (Fig.1, Item 15) further comprising a skirt (Fig.1, Item 16), wherein the skirt depends from a marginal region of the top plate, and further wherein the skirt extends toward the bottom plate; and wherein the top plate is larger than the plate such that the bottom plate fits within an area defined by the skirt (Fig.1).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Bach et al. skirt configuration with the Huyett and van Goubergen design because the skirt, in addition of providing an aesthetic look, it would precludes excessive lateral excursion between the top and bottom plate, and

would provide protection against the ingress of dust or any other particulate to the vibration-control elements area that would adversely affect the performance of the article.

3. Claims 15 – 20 and 26 – 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Goubergen (US 5,330,165).

With respect to claims 15 and 26, van Goubergen teaches an article comprising a plate (Figs.1 and 6, Items 2 and 2e), wherein the plate comprises a first plurality of spaced wells (Figs.1 and 6, Items 4 and 4e) arranged in a two-dimensional array (Fig.6); and a second plurality of vibration-control elements (Figs.1 and 6, Item 1), wherein the vibration-control elements are received by the wells, one vibration-control element to a well (Figs.1 and 6), but fails to disclose wherein the vibration-control elements are received by some but not all of the wells.

The Examiner considers that it would have been an obvious matter of design choice to employ a desired amount of wells and/or vibration-control elements because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In *re* Aller, 105 USPQ 233; as so it is discovering an optimum value of a result effective variable involves only routine skill in the art. In *re* Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980); additionally, it has been held that omission of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. In *re* Karlson, 136 USPQ 184.

With respect to claims 16 – 18, 27 and 32, van Goubergen teaches the limitations described in the claims (Figs.1 and 6; Col.5, Line 3 – Col.7, Line 14).

With respect to claims 19, 20 and 28 – 31, the Examiner considers that it would have been an obvious matter of design choice to provide plates and balls of a particular material because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

4. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bach et al. (US 3,679,159) in view of van Goubergen (US 5,330,165).

With respect to claim 21, Bach et al. teach an article comprising a bottom plate (Fig.1, Item 13), a plurality of resilient balls (Fig.1, Items 17 – 20), wherein the resilient balls are received by the bottom plate; and a top plate (Fig.1, Item 15), wherein the top plate is disposed on the resilient balls, and wherein a surface of the top plate that abuts the resilient balls is planar and does not include wells (Fig.1; Col.2, Line 25 – Col.3, Line 14), but fail to disclose wherein the bottom plate comprises a plurality of spaced wells arranged in a two-dimensional array, and wherein the resilient balls are received by some but not all of the wells.

Nevertheless, van Goubergen teaches an article comprising a bottom plate (Fig.6, Item 2e), wherein the bottom plate comprises a plurality of spaced wells (Fig.6, Item 4e) arranged in a two-dimensional array (Fig.6); a plurality of resilient balls (Fig.6, Item 1), wherein the resilient balls are received by the wells (Fig.6); and a top plate (Fig.6, Item 2e), wherein the top plate is disposed on the resilient balls (Fig.6).

The Examiner considers that it would have been an obvious matter of design choice to employ a desired amount of wells and/or vibration-control elements because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233; as so it is discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980); additionally, it has been held that omission of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. In re Karlson, 136 USPQ 184.

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the van Goubergen wells configuration with the Bach et al. design because the wells would provide a constraint against lateral movements, improving the stability of the system.

With respect to claim 22, the Examiner considers that it would have been an obvious matter of design choice to provide plates of a particular material because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

(10) Response to Argument

Regarding **Claim 1**, the Appellant has mistakenly interpreted the Huyett and van Goubergen combination by bodily incorporating elements of van Goubergen into Huyett.

The Examiner reminds the Appellant that **the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference**; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, **the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art**. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In this case, Huyett teaches an article for use with spherical vibration-control elements as described in claim 1, except for being in a two-dimensional array; van Goubergen teaches an article for use with spherical vibration-control elements being in a two-dimensional array. The Examiner strongly considers that the obvious combination of the patent to Huyett and van Goubergen disclose the limitations described in claim 1. The Examiner also considers that any person with ordinary skill in the art would be able to recognize that some slight changes and/or alterations, without departing from the scope and spirit of the inventions, e.g. dimensions, materials and/or shape, could be made to the Huyett and van Goubergen combination depending upon the specific requirements of the particular application.

Regarding **Claim 10**, the Appellant has mistakenly interpreted, again, the Huyett and van Goubergen combination by bodily incorporating elements of van Goubergen into Huyett. The Examiner reminds the Appellant that **the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference**; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, **the test is what the**

combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The Examiner strongly considers that Huyett teaches the vibration control element contacting the plate at substantially every point along a perimeter of the well (Figs.2 and 3), and wherein the only constraint to unrestricted lateral movement of the spherical vibration control elements are the wells (Figs.2 and 3); and van Goubergen teaches the vibration-control elements when being disposed in the wells, they do not abut a bottom of the wells (Fig.2). The Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In *re Nomiya*, 184 USPQ 607 (CCPA 1975). However, **there is no requirement that a motivation to make the modification be expressly articulated.** The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In *re McLaughlin*, 170 USPQ 209 (CCPA 1971) **The references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures.** In *re Bozek*, 163 USPQ 545 (CCPA 1969).

In this case, any person with ordinary skill in the art would be suggested by Huyett (Figs.2 and 3) to place the vibration control element in contact with the plate at substantially every point along a perimeter of the well, in which the only constraint to unrestricted lateral movement of the spherical vibration control elements are the wells. This design would provide a simple configuration that would assure the placement of

the vibration control element in the well that would help prevent any lateral movement of the plates, increasing the lateral stability of the system.

van Goubergen (Fig.2) would suggest any person with ordinary skill in the art to provide some space between the bottom of the well and the vibration control element, in order to provide for extra deformation into this space of the vibration control element, increasing the load capacity while maintaining the vibration absorption characteristic of the system.

In response to applicant's arguments against the references individually, **one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.** See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The Appellant has selected sections of the van Goubergen disclosure that are irrelevant to the rationale of the Examiner because such selected sections are directed to a different embodiment (Fig.4) from the one employed by the Examiner (Fig.2) to demonstrate the known status of the limitation.

Regarding **Claim 11**, the Examiner considers that it would have been an obvious matter of design choice to employ fewer of the vibration control elements than wells; such a modification would not depart from the scope and spirit of the Huyett and van Goubergen teachings and would only comply with specific requirements of a particular application. Furthermore, the courts have decided that the omission of an element and its function in a combination where the remaining elements perform the same function

as before involves only routine skill in the art. In re Karlson, 136 USPQ 184; also, discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272,205 USPQ 215 (CCPA 1980). In this case, the result effective variable is the amount of vibration control elements in relation to the weight of the vibratory device or the capacity of producing a certain amplitude of vibration, based on those specific requirements of the particular application, an user could determined how many of the vibration control elements are needed to obtain the desired results.

Regarding **Claims 4 and 6**, Appellant did not present any argument against the Bach et al. patent, other than a reference to the arguments regarding Claim 1; therefore, the Examiner presumes that the Appellant acknowledges that Bach et al. teach the limitations presented in claims 4 and 6.

Regarding **Claim 15 and 26**, the Examiner considers that it would have been an obvious matter of design choice to employ fewer of the vibration control elements than wells; such a modification would not depart from the scope and spirit of the van Goubergen teachings and would only comply with specific requirements of a particular application. Furthermore, the courts have decided that the omission of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. In re Karlson, 136 USPQ 184; also, discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272,205 USPQ 215 (CCPA 1980). In this case, the result effective variable is the amount of vibration control elements in relation to the

weight of the vibratory device or the capacity of producing a certain amplitude of vibration, based on those specific requirements of the particular application, an user could determined how many of the vibration control elements are needed to obtain the desired results.

The Appellant has not established any criticality on using fewer vibration control elements than wells, the only reason the Examiner could think of using fewer vibration control elements, based on the Appellant disclosure, is for economical reasons, since not all device weight the same there is no need for extra vibration control elements in order to obtained the desired results. The Examiner considers that any person with ordinary skill in the art would acknowledge that the claimed invention would work the same with a minimum amount of vibration control elements or more depending upon the weight of the device.

Additionally, since Appellant only argued the use of the *In re Aller* decision, the Examiner presumes that the Appellant acknowledges that the use of the decisions based on *In re Boesch* and *In re Karlson* are applicable to the claims, and therefore it would have been an obvious matter of design choice to employ a desired amount of wells and/or vibration-control elements because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980); and that omission of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. In re Karlson, 136 USPQ 184.

Regarding **Claim 21**, The Examiner considers that the Appellant is trying to direct the attention to others embodiments presented in the references of the prior art that do not disclose the claimed subject matter. The embodiment presented in Figure 1 of Bach et al., which is the embodiment employed to disclose the claimed subject matter, clearly shows the limitations described in the claim except for the bottom plate comprises a plurality of spaced wells arranged in a two-dimensional array, and wherein the resilient balls are received by some but not all of the wells. Such deficiencies in the Bach et al. patent were addressed by the obvious combination of the patent to van Goubergen, as discussed above.

The Examiner reminds the Appellant, once again, that it has been held that one cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references. In *re Keller*, 208 USPQ 871 (CCPA 1981); and that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

For the reasons discussed above the Examiner strongly considers that a *prima facie* case have been made for the rejection of claims 1 – 22 and 26 – 32 based on the obvious interpretation and/or combination of the teachings presented by Huyett, van Goubergen and Bach et al., and that any person with ordinary skill in the art would be

suggested and/or motivated to combine such teachings to obtain an article for use with spherical vibration control elements as described by the claimed subject matter.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Edgardo San Martin/

Edgardo San Martin
Primary Examiner, Art Unit 2837

Conferees:

Walter Benson

/Walter Benson/
Supervisory Patent Examiner, Art Unit 2837

/T C Patel/
Supervisory Patent Examiner, Art Unit 2839